N° 8208 A.D. 1908

Date of Application, 13th Apr., 1908—Accepted, 13th Apr., 1909

COMPLETE SPECIFICATION.

"Arrangement for Separating Liquid and Dirt from Gases and Steam by Means of Oblique Currents, Separators and Catch Chambers."

I, HENRY OTTO KLAUSER, Civil Engineer, of 116 High Holborn, London W.C., England, do hereby declare the nature of this invention, which has been communicated to me from abroad by C. F. Scheer & Co., of Feuerbach by Stuttgart, Germany, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to apparatus for separating liquid and dirt from gases and steam of the type which is constructed with oil separating or depositing surfaces against which the steam flowing through the apparatus is caused to impinge in an inclined direction and in conjunction with which liquid catchers are used, the arrangement being such that oil or water or oil and water deposited on the said surfaces from the steam will be caused to drain into the liquid catchers whence it will quietly flow away to a suitable receptacle or outlet.

These known apparatuses have however the drawback that the separate particles come into contact again with the steam current and go along with it, so that the desired object is not attained.

In my invention I provide means by the aid of which the separate particles are prevented from leaving the catchers again.

In order that the invention may be fully and clearly understood reference is made to the accompanying drawing, in which three forms of liquid catchers for apparatus for separating liquid and dirt from gases and steam are shown:

Referring to Fig. 1 I construct the liquid catchers of a semi-circular channel 2 with extended sides, which said sides are provided with flanges. These flanges serve the purpose of preventing the deposited particles from leaving the liquid catchers with the escaping steam. These liquid catchers are arranged in rows, and in front of each row of liquid catchers, I provide a row of angle irons 1 suitably called dividers representing liquid separating or depositing surfaces against which the steam flowing through the apparatus is caused to impinge. The separated liquid flows out of the catch chambers through the openings 3.

Referring to Figs. 2 and 3 I employ only one row of angle irons 1, for the purpose as described above.

The liquid catchers are so constructed that the top end, *i.e.* the open end is narrower than the lower end. For this purpose the sides of the liquid catchers are more or less inclined relative to their base which said inclined sides serve as depositing surfaces. These upper extremities of the sides of the liquid catchers may, or may not be provided with flanges for the purpose described as the steam, when leaving the liquid catchers, impinges again against the inner surfaces of the said catchers, and hence, any liquid or dirt contained in the steam or gas, is deposited on the said inner surfaces.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1) An apparatus for separating liquid and dirt from steam and gases of the type which is constructed with oil separating or depositing surfaces against

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which the steam flowing through the apparatus is caused to impinge in an inclined direction and in conjunction with which liquid catchers are used, the arrangement being such that oil or water or oil and water deposited on the said surfaces from the steam will be caused to drain into the liquid catchers whence it can quietly flow away to a suitable receptacle or outlet, characterised by liquid chambers having semi-circular, otherwise round, or flat bases with parallel side walls with flanges or inclined side walls, with or without flanges, substantially as described.

2) An apparatus according to Claim 1, constructed and arranged substantially as described and shown in the accompanying drawing.

Dated this 13th. day of April 1908.

HENRY O. KLAUSER,
Civil Engineer.

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KLAUSER'S Complete Specification (1 sheet)

[This Drawing is a full-size reproduction of the Original.]

Fig.1

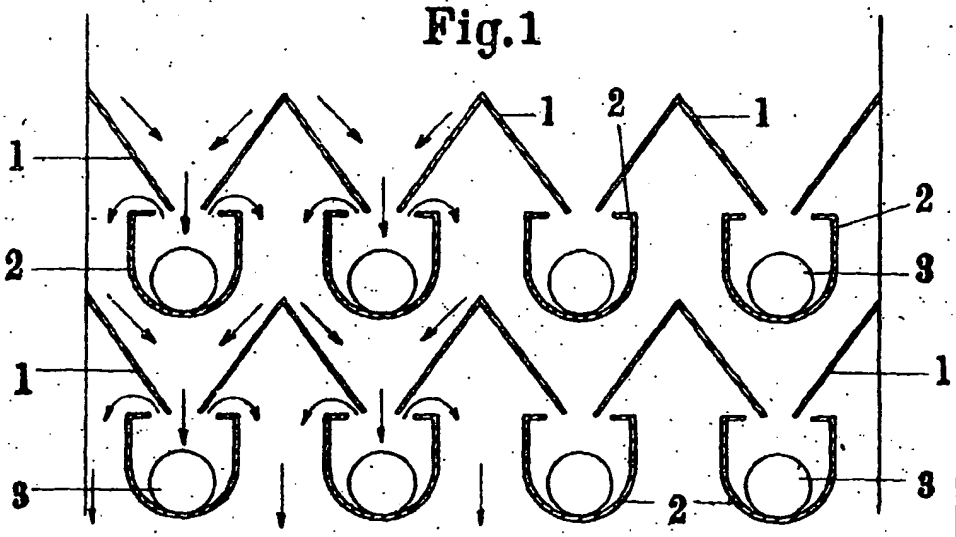


Fig.2

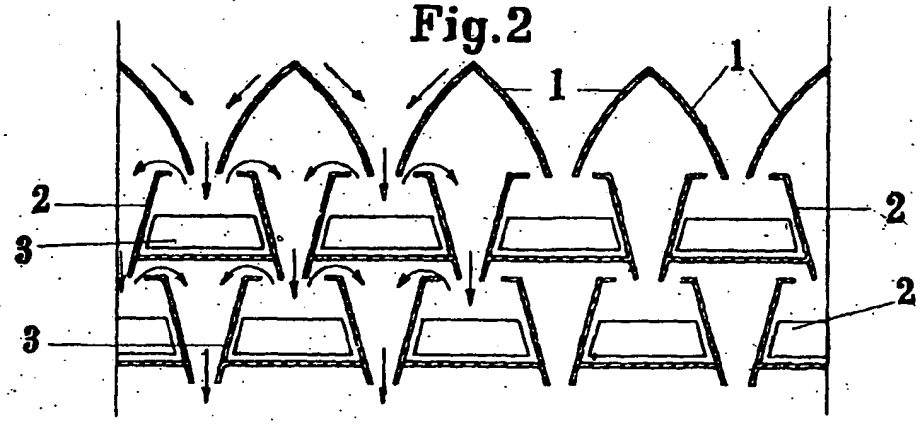
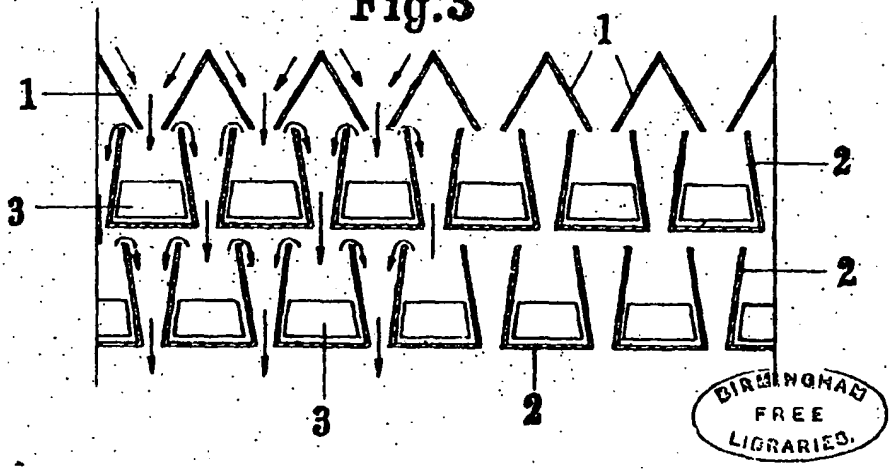


Fig.3



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